

## 1.1 Using CTDOT Standard and Guide Sheets:

The purpose of this workflow is to provide instructions on how to obtain and store CTDOT Standard or Guide Sheets and how to properly insert them into a project contract plan set.

It is the responsibility of the project lead designer to insure standard sheets have been inserted into the contract plan set for the Semi-Final Design review.

After November 2, 2009, CTDOT Printing Services shall no longer insert standard sheets into contract plan sets.

### 1.1.1 *CTDOT Standard and Guide Sheet Definitions:*

#### CTDOT Standard Sheets:

- Formal digitally signed sheets that establish uniform engineering or technical criteria, used for the construction of standard infrastructure features.
- Determined by discipline lead to express the Department's intent to have a feature constructed in a specific manner.
- Sheets requiring signatures by Consumer Protection regulations. Consumer Protection regulations require any sheets within a project that have "appurtenant structures" to be signed individually. See Section 20-300-10 (License Seals and Stamps).
- Shall be located at the end of the contract plans.
- Use a new CTDOT border that has a specific space designated for digital signatures, and also contains a custom title block tag set.
- Are available, as both digitally signed individual PDF files stored within a PDF Package, and MicroStation Models within an individual MicroStation File. All files are available to both in house staff and Consultant Engineers, through the use of a CTDOT Standards Website.
- Are grouped together by discipline for maintenance and development.
- Are dual dimensions (English/(Metric)).

### CTDOT Guide Sheets:

- Contain details which may be modified per project.
- Are inserted into the main body of the contract plans, and located within the discipline's contract sheets. The Engineer of Record assumes responsibility for the content of any guide sheets he or she uses on projects.
- May need to be signed by the Engineer of Record per Consumer Protection Regulations.
- Are available on the web as MicroStation Sheet Models, along with the accompanying multi page PDF file which may be used as an index of available guide sheets.

### *1.1.2 Obtaining CTDOT Standard Sheets:*

Each discipline set of CTDOT Standard Sheets shall be downloaded from their respective web-pages and saved in the appropriate discipline subfolder within the project container.

\*Note: Standards Sheets shall always be downloaded from the standard drawing website to ensure that the most up to date details are used.

### ***Down Load CTDOT Standard Sheets:***

#### ***Example: CTDOT Standard Sheets – Traffic Discipline Set***

1. Click on the following link. (CTDOT Standards Drawing Webpage).  
[http://www.ct.gov/dot/CTDOT\\_Standard\\_Drawings](http://www.ct.gov/dot/CTDOT_Standard_Drawings)
2. Click on the Discipline header for the discipline set of CTDOT Standard Drawings required. (In this example - Traffic)

[Traffic Engineering Standard Drawings](#)

(Webpage dedicated to providing the latest CTDOT Standard Sheets and Guide Sheets)

3. Under the Standard Sheets heading - right click on the digitally signed PDF file, and choose the option; "Save Target As"

## Standard Sheets

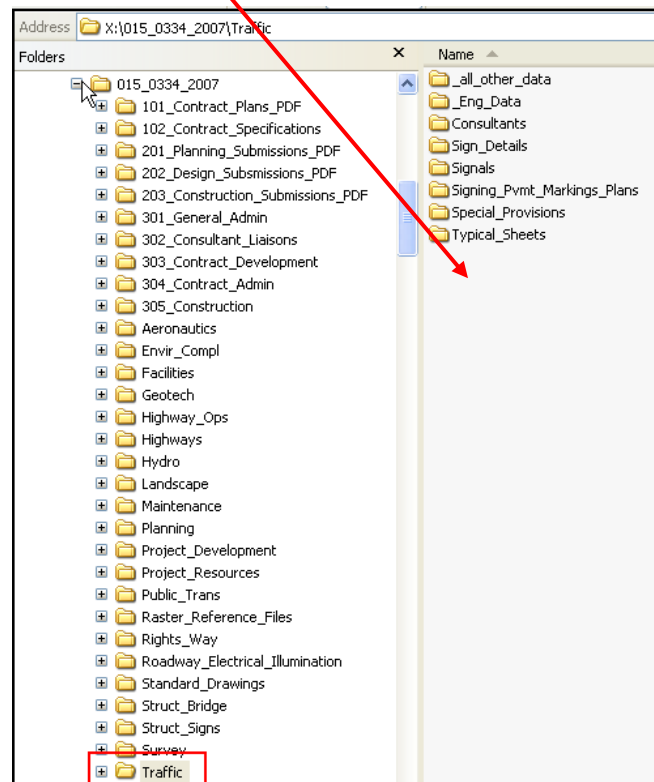
Right Click

Files:

DIGITALLY SIGNED PDF FILES	MICROSTATION SHEET MODELS	ISSUED
ctdot_traffic_std.pdf (11mb)	ctdot_traffic_std.zip (5mb)	9/22/09

4. Browse to the appropriate project container and discipline subfolder location on the X:Drive, and click save. Use the files existing name.

CTDOT\_Traffic\_STD.PDF

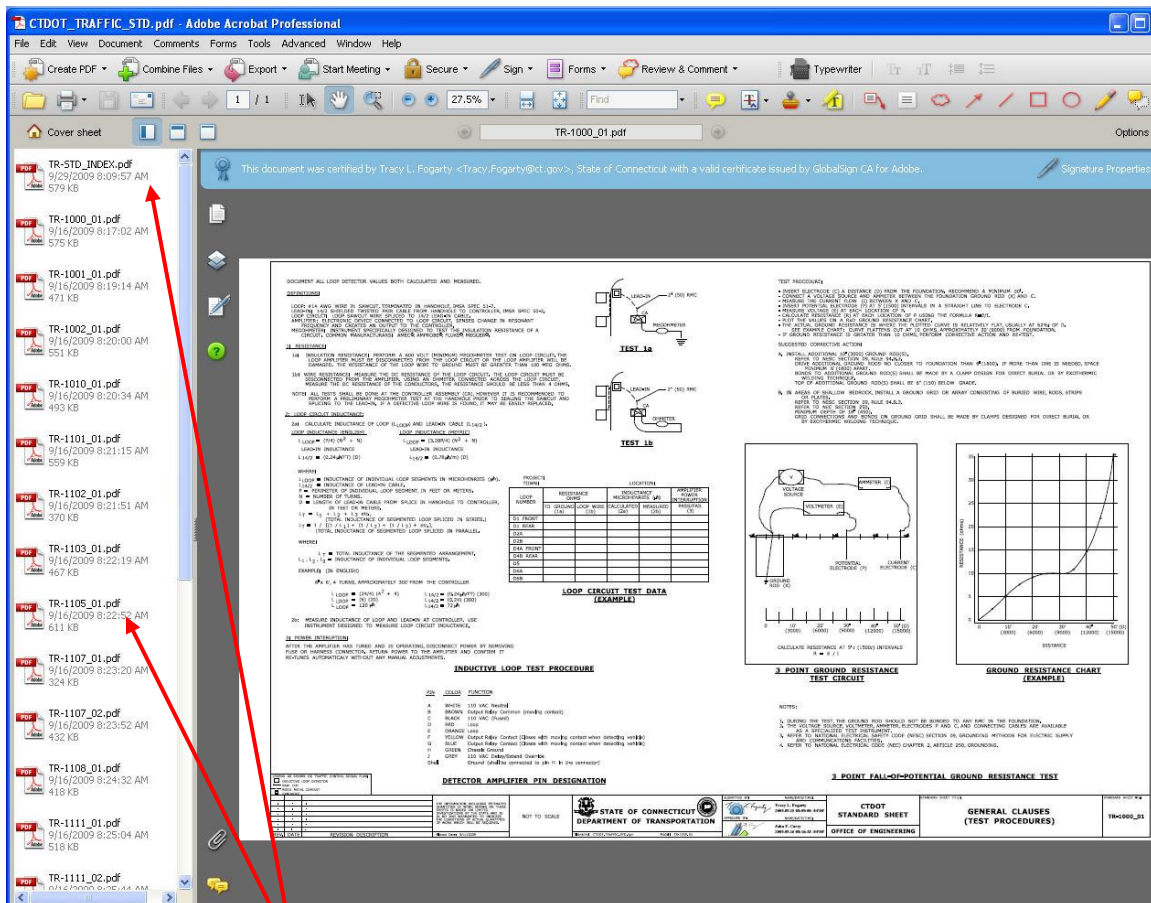


### 1.1.3 Modifying the CTDOT Standard package per Project:

#### Example: CTDOT Standard Sheets – Traffic Discipline Set

This procedure must be repeated for each discipline set.

1. Using Adobe Acrobat Professional open the PDF package previously saved in the project container.



Notice – the PDF package contains each individually digitally signed CTDOT Standard Sheet (Traffic set), including the index.

2. Click on the index PDF to make it active. In this example TR-STD\_INDEX.pdf. The index contains a list of all the available Standard Sheets, per that discipline.

All the titles listed in the index are active hyperlinks. Users may navigate to any Standard Sheet in the package by clicking on the title text.

The screenshot shows the Adobe Acrobat Professional interface. The left sidebar displays a list of PDF files, with **TR-STD\_INDEX.pdf** (579 KB) highlighted at the top. A red arrow points to this file. The main window displays the content of **TR-STD\_INDEX.pdf**, which is a table listing various standard sheets. The table has columns for **SHEET NO.**, **TITLE**, and **APPROVAL DATE\*\***. The table lists 12 sheets, each with a title and an approval date. The bottom of the page features a footer with the text **STANDARD SHEETS SHALL BE USED WITH STANDARD SPECIFICATIONS** and a logo for the **STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION**.

SHEET NO.	TITLE	APPROVAL DATE**
TR-1000-01	GENERAL CLAUSE (TYPICAL) (1)	09/16/2009
TR-1001-01	TRUCKING & RIGGING, ELECTRICAL CLAUSE (1)	09/16/2009
TR-1002-01	TRAFFIC CONTROL FUNCTIONS (1)	09/16/2009
TR-1003-01	CONCRETE JUNCTION (1)	09/16/2009
TR-1004-01	OVER ARCHES, CONTROL GATE AND WISCONSIN & SPAN WEB (1)	09/16/2009
TR-1005-01	TRUCKING & RIGGING, ELECTRICAL CLAUSE (1)	09/16/2009
TR-1006-01	TRAFFIC SIGNALS AND SIGNAL ASSIGNMENTS (1)	09/16/2009
TR-1007-01	TRUCKING & RIGGING, ELECTRICAL CLAUSE (1)	09/16/2009
TR-1008-01	TRUCKING & RIGGING, ELECTRICAL CLAUSE (1)	09/16/2009
TR-1009-01	TRUCKING & RIGGING, ELECTRICAL CLAUSE (1)	09/16/2009
TR-1010-01	TRUCKING & RIGGING, ELECTRICAL CLAUSE (1)	09/16/2009
TR-1011-01	TRUCKING & RIGGING, ELECTRICAL CLAUSE (1)	09/16/2009

3. While viewing the index file, place a check mark, using the hand tool, in the corresponding boxes next to each Standard Sheet your project requires. To remove a check mark click on it.
4. Again using the hand tool, click on the project number at the top of the sheet.
5. Edit the project number

TR-STD\_INDEX.pdf

Please fill out the following form to request a Standard Sheet. Click on the 'Form' icon in the Forms menu to send it to your requests.

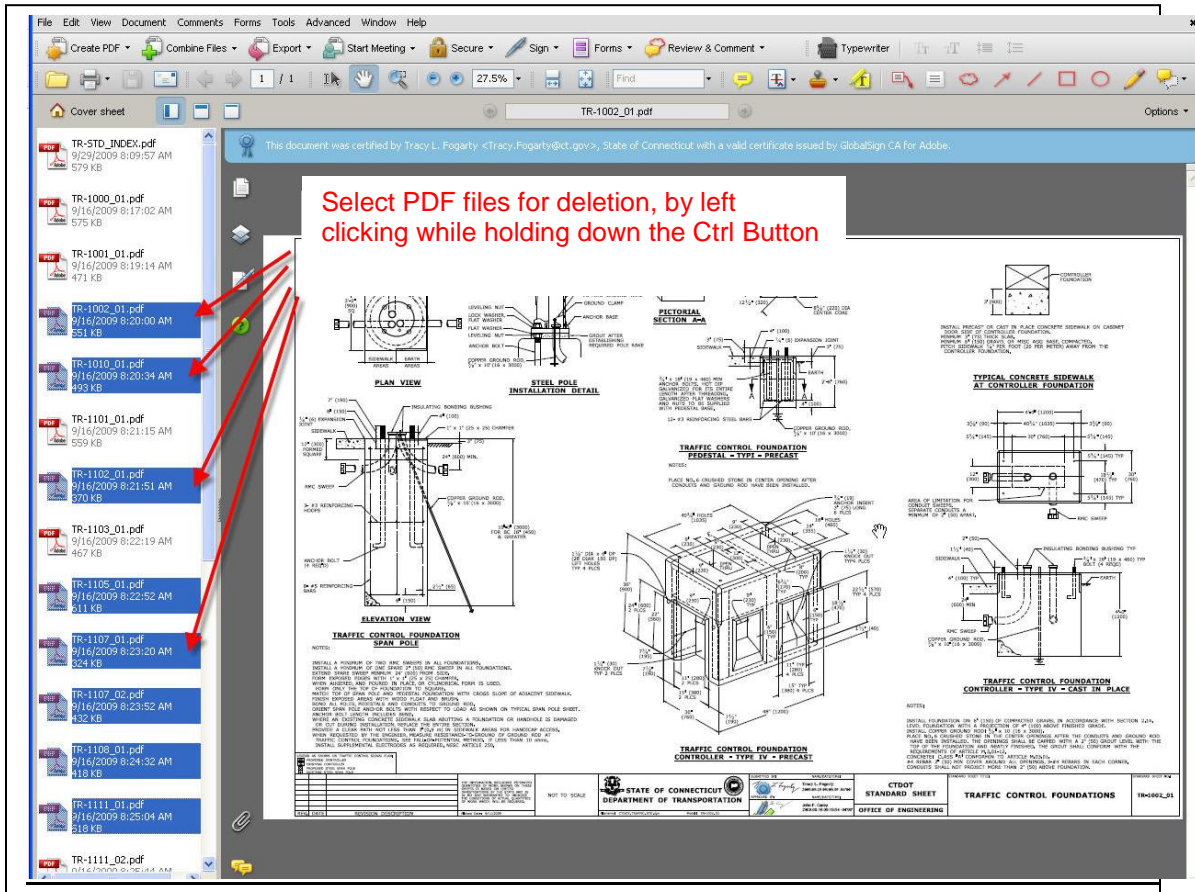
**\*ONLY STANDARD SHEETS\*** **Place Check Marks Using Hand Tool** **AN "✓" ARE IN THIS PROJECT # 123-4567** **\*\*REVISIONS\*\***

✓	SHEET NO.	TITLE	APPROVAL DATE**
	TR-1000_01	GENERAL CLAUSES (TEST PROCEDURES) [7]	09/01/09
✓	TR-1001_01	TRENCHING & BACKFILLING, ELECTRICAL CONDUIT [3]	09/01/09
	TR-1002_01	TRAFFIC CONTROL FOUNDATIONS [5]	09/01/09
	TR-1010_01	CONCRETE HANDHOLE [4]	09/01/09
✓	TR-1101_01	POLE ANCHOR, CONTROL CABLE AND MESSENGER & SPAN WIRE [13]	09/01/09
	TR-1102_01	PEDESTALS, PEDESTRIAN SIGNALS [9]	09/01/09
	TR-1103_01	SPAN POLE, ALTERNATE FLASHING SIGNALS FOR WARNING SIGNS [14]	09/01/09
	TR-1105_01	TRAFFIC SIGNALS AND CABLE ASSIGNMENTS [11]	09/01/09
✓	TR-1107_01	PEDESTRIAN PUSH BUTTON [10]	09/01/09
	TR-1107_02	AUDIBLE PEDESTRIAN SIGNAL, "Y" CLAMP, SIGN HANGER [12]	09/01/09
	TR-1108_01	CONTROLLERS [10A]	09/01/09
✓	TR-1111_01	LOOP VEHICLE DETECTOR AND SAWCUT [6]	09/01/09
	TR-1111_02	VEHICLE DETECTION SYSTEMS [8]	09/01/09
	TR-1116_01	OVERHEAD ILLUMINATED "STOP AHEAD" SIGN & INTERNALLY ILLUMINATED SIGN [15]	09/01/09

The modified index file shall be used as a manifest (per discipline), in the project plan set, to show what Standard Sheets will be included in the project.

The unused PDF files must be removed from the package. See Step 6

- Left click, while holding down the Ctrl button, on the Standard Sheets PDF files in the left hand column that are not required.



- Hit the delete button on the key board.
- Save the PDF package.

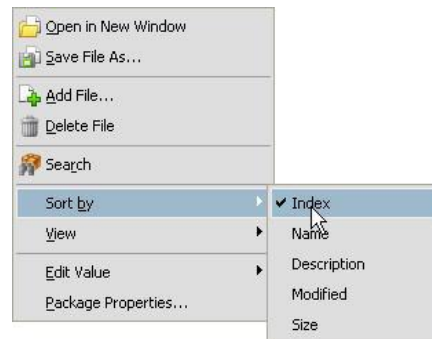
At this point the Standard Sheets package (per discipline) should only contain the modified index and the required Standard Sheets.



To restore a Standard Sheet PDF file that was removed from the package:

Using Adobe Acrobat Professional open a copy of both the original webpage Standard Sheets PDF Package, and the Project Standard Sheets PDF package (Package copied to project container).

Next, in the original package locate the PDF file needed, from the left hand column. Left click on it – while continuing to hold down the left mouse button drag and drop the required file into the desired project specific PDF Package. In the project specific Package Right click on any PDF file in the left hand column and choose the option sort by index.



#### 1.1.4 *Inserting CTDOT Standard Sheets into a project plan set:*

##### **1.1.4.1 Mylar Project:**

Once the PDF package has been obtained and properly stored, and the index sheet has been modified, each discipline set shall be printed by each discipline (on mylar). The index sheet shall then be signed by the engineer of record and the entire set shall be delivered to the lead project engineer.

The lead project engineer shall then be responsible for assembling, within the contract, all the standard sheets (per discipline), with each discipline index sheet preceding its corresponding set of standard sheets. The order of the discipline sets shall be the discretion of the lead engineer. Once the lead engineer has assembled the standard sheets in order, the entire set of standards shall be placed at the end of the contract plan set.

The discipline set title shall be added to the end of the drawings list, located on the project title sheet. It is not necessary to list each standard sheet in this location. See example below.

*Example Titles:* Highway Standard Sheets  
Traffic Standard Sheets



LIST OF DRAWINGS					
DWG. NO.	SHEET NO.	TITLE	DWG. NO.	SHEET NO.	
	1	TITLE SHEET			
	2	DETAILED ESTIMATE SHEET			
	3-11	TYPICAL SECTIONS			
	11-15	PLAN AND PROFILE SHEETS			
	16-20	STRUCTURE SHEETS			
		HIGHWAY STANDARD SHEETS			

#### **1.1.4.2 Digital Project:**

After the PDF package has been copied to the project container, and the Index sheet has been modified (check marks, project number), and all non-essential Standard Sheet PDF files have been deleted, the index PDF shall be digitally signed, within the PDF Package, by the corresponding engineer of record.

See the following guide on how to attach each discipline set of standard sheets to a digital project.

[Digital Project Development Manual](#)

#### **1.1.5 Obtaining CTDOT Guide Sheets:**

##### **1.1.5.1 Down Load CTDOT Discipline Specific Multi-Model DGN File:**

**Example: CTDOT\_Traffic\_GS.zip**

1. Follow this link to the CTDOT Standards Drawing Webpage.  
[http://www.ct.gov/dot/CTDOT\\_Standard\\_Drawings](http://www.ct.gov/dot/CTDOT_Standard_Drawings)
2. Click on the Discipline Header for the set of Standard Drawings you need.

[Traffic Engineering Standard Drawings](#)

(Webpage dedicated to providing the latest CTDOT Standard Sheets and Guide Sheets)

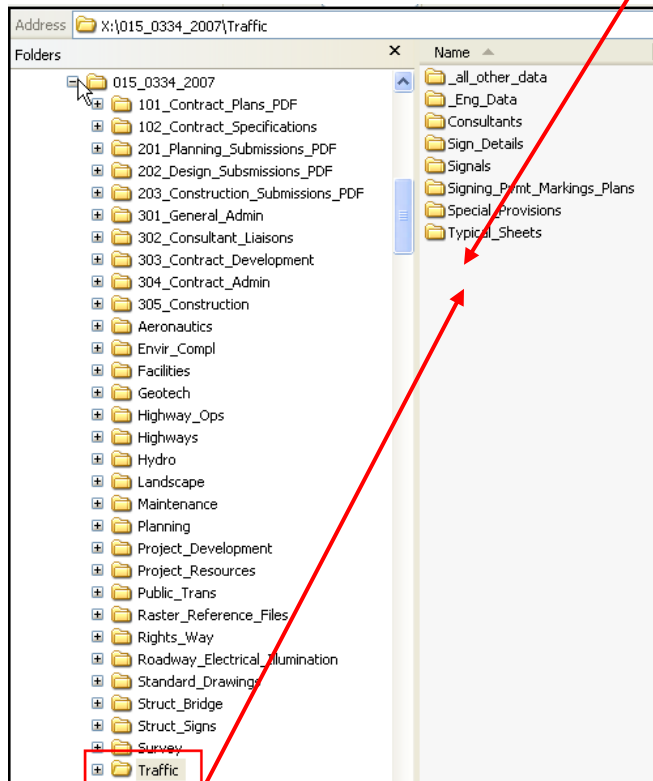
3. Next, under the Guide Sheets heading right click on the MicroStation Sheet file, and choose the option; "Save Target As"

[Guide Sheets](#)

Files:

PDF FILE	MICROSTATION SHEET MODELS	ISSUED
<a href="#">ctdot_traffic_gd.pdf</a> (4.3mb)	<a href="#">ctdot_traffic_gd.zip</a> (800kb)	9/22/09

4. Browse to the appropriate project container and discipline subfolder location on the X:Drive, and click save.



Unzip file to this location

\*Note: Adjacent to the Discipline Specific Zip file resides a PDF file. Click on this file to quickly preview what guide sheets are available.

### Guide Sheets

Files:

PDF FILE	MICROSTATION SHEET MODELS	ISSUED
<a href="#">ctdot_traffic_gd.pdf</a> (4.3mb)	<a href="#">ctdot_traffic_gd.zip</a> (800kb)	9/22/09

### ***1.1.5.2 Inserting CTDOT Guide Sheets into a project:***

1. Create a new MicroStation file using the CT\_Sheet\_Civil\_2D\_V8i.dgn seed file.
2. Reference the unzipped discipline specific Guide Sheets MicroStation file. Make sure to choose the correct model.
3. Copy border, tags and required content.
4. Detach Guide Sheet MicroStation file.
5. Modify details as required.
6. Print sheet model on mylar.
7. Insert into the main body of the contract plans, and located within your discipline's contract sheets.
8. Sign if required.

The Engineer of Record assumes responsibility for the content of any guide sheets used. If necessary, these sheets shall be signed in accordance with Consumer Protection Regulations.

See the following guide on how to insert a guide sheet into a digital plan set.

[Digital Project Development Manual](#)